

COMPLETE LISTING OF THE CLAIMS

The following lists all of the claims that are or were in the above-identified patent application. The status identifiers respectively provided in parentheses following the claim numbers indicate the current statuses of the claims.

Claims 1-10 (Canceled)

11. (Currently Amended) A rapid diagnostic test system comprising
a medium containing a labeling substance that comprises ~~[[a]]~~ first persistent fluorescent structure structures that emit light having a first frequency and second persistent fluorescent structures that emit light having a second frequency, wherein each of the first persistent fluorescent structures is attached to a labeling substance being capable of binding the first persistent fluorescent structure to a target analyte when a sample containing the target analyte is applied to the medium;
a light source positioned to illuminate a target area and a control area on the medium;
a first photodetector positioned to measure light of the first frequency originating from the target area of the medium; and
a second photodetector positioned to measure light of the second frequency originating from the control area, wherein a signal from the second photodetector indicating an intensity above a threshold level indicates that the sample has passed through the target area. ~~the photodetector and the medium are contained in a single-use module;~~
~~and~~
~~a reusable module having a receptacle into which the single-use module can be inserted for communication of test signals between the single-use module and the reusable module.~~

12. (Currently Amended) The system of ~~claim 11~~ claim 38, wherein the reusable module implements a user interface capable of indicating a test result.

Claims 13-20 (Canceled)

21. (Previously Presented) The system of claim 12, wherein the user interface comprises a display for the test result.

22. (Currently Amended) The system of ~~claim 11~~ claim 38, wherein the test signals are electrical test signals.

23. (Currently Amended) The system of claim 11, wherein the first and second persistent fluorescent ~~structure comprises a~~ structures comprise quantum ~~dot~~ dots.

24. (Canceled)

25. (Canceled)

26. (Currently Amended) The system of ~~claim 24~~ claim 11, wherein the medium comprises a lateral-flow strip for performing a binding assay, and the target area contains an immobilized substance that binds to and holds a complex including one of the labeling substance first persistent structures and the target analyte.

Claims 27-36 (Canceled)

37. (New) The system of claim 11, wherein the first photodetector, the second photodetector, and the medium are contained in a single-use module.

38. (New) The system of claim 37, further comprising a reusable module having a receptacle into which the single-use module can be inserted for communication of test signals between the single-use module and the reusable module.

39. (New) The system of claim 26, wherein the second persistent structures bind to the control strip.

40. (New) The system of claim 11, further comprising:

a first color filter that transmit light of the first frequency to the first photodetector and blocks other frequencies; and

a second color filter that transmit light of the second frequency to the second photodetector and blocks other frequencies.